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FOR
YELLOWSTONE NATIONAL PARK

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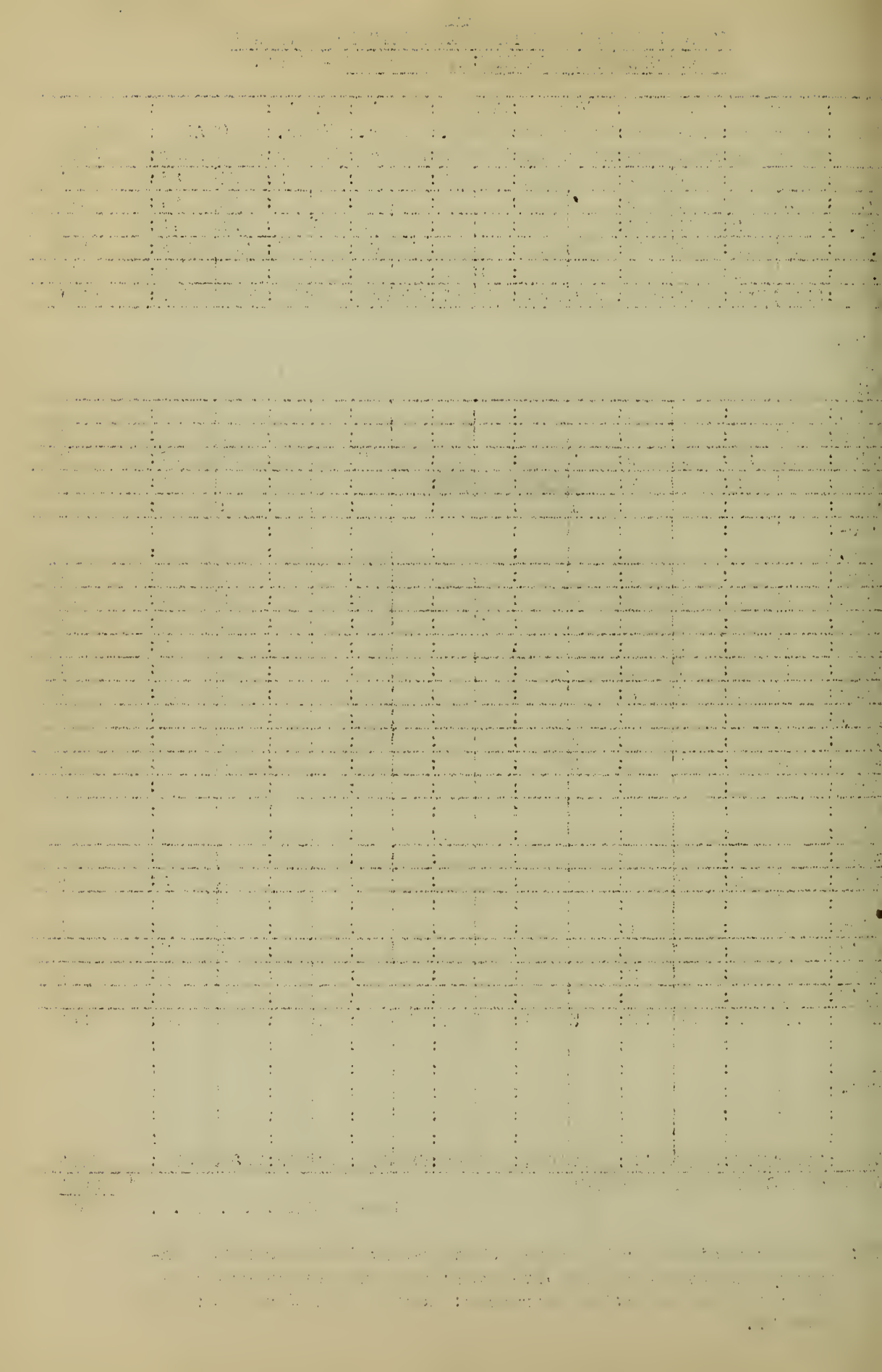
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ANNUAL REPORTS
FOR
YELLOWSTONE NATIONAL PARK

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ANNUAL REPORT
FOR
YELLOWSTONE NATIONAL PARK

1933



During the years 1927 and 1928, due to shortage of funds, also in 1931, it was not possible to include the reports of the various superintendents in the annual report of the Director of the National Park Service and the reports were mimeographed. Again in 1932 shortage of funds makes mimeographing necessary.

Fifty copies of the Yellowstone annual report have been made for distribution to collectors who have the Yellowstone reports since the first issue and to others who are interested in having copies for reference purposes.

The illustrations are the work of Park Ranger Gerald P. Yetter.

Roger W. Toll
Superintendent

YELLOWSTONE
NATIONAL PARK

2344

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THE FIRST PART OF THE
BOOK IS A HISTORY OF THE
CITY OF NEW YORK FROM
ITS FOUNDATION TO THE
PRESENT TIME. THE SECOND
PART IS A HISTORY OF THE
STATE OF NEW YORK FROM
ITS FOUNDATION TO THE
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THE HISTORY OF THE
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ANNUAL REPORT FOR YELLOWSTONE NATIONAL PARK

1932

Roger W. Toll, Superintendent

GENERAL

The year 1932 marks the sixtieth anniversary of the establishment of Yellowstone National Park. There was a continued improvement in roads and facilities available to visitors. The park itself was never more beautiful as the season was favorable to an unusual abundance of wild flowers. The summer forage for elk and other grazing animals was abundant and remained green until late in the summer. Weather conditions were excellent from the standpoint of the park visitor. Fishermen reported good catches in all sections of the park, and the fire hazard was not serious until late in August.

The general business depression throughout the country resulted in a marked decrease in park travel and a still greater decrease in the amount of business done by the operators. The preceding two years, 1930 and 1931, had both shown decrease in travel and business, but the further decrease of this year was of unexpected extent. Most operators experienced a decrease of from fifty to sixty per cent from the business of last year. The decrease in rail travel was most pronounced, amounting to a loss of fifty-five per cent as compared with last year. From the opening of the season on June 20, total park travel showed a decrease which continued throughout the season at a fairly constant ratio of twenty-nine or thirty per cent under last year.

There was a noticeable difference in the type of accommodations visitors were seeking, and there appeared to be a tendency to go through the park as quickly as possible with the least expense. The experience of this past summer will probably result in extensive changes in the operations of the hotels and lodges in order to meet the wishes of the traveling public.

The first fire of any consequence broke out in the Mirror Plateau region on August 22 and after covering an area of almost 2,000 acres the first day gradually subsided and spread very little during the next several days. The crews on the fire, comprising about 175 men, were cut down on August 28 after getting the fire under control and a heavy rain and some snow on the 29th and 30th eliminated further danger. The experience gained in combatting the numerous fires in 1931 was valuable in handling the Mirror Plateau fire and the work was accomplished with a minimum of expense.

While the operators were experiencing a bad financial year, the service rendered by these utilities was of the highest order and few complaints were received despite the fact that the crews were kept to a minimum.

When the travel season closed, our records showed a decrease of 63,624 visitors under a year ago, or 29 per cent. The first decrease in park travel since 1918 occurred during the summer of 1930; in 1931 a loss was again recorded, and the decrease this year is the most pronounced of the three year period. These travel figures reflect the general conditions throughout the country.

The labor situation during the year has been critical and several months before the park season opened applications for all types of employment were pouring into the office. Every effort was made to give as much employment as possible with the funds available and preference was given to previous employees whose services had been satisfactory and to married men with families residing in adjacent states. The reduction of eight and one-third per cent in the salaries and wages of all employees, in accordance with the provisions of the Economy Bill, approved June 30, 1932, resulted in some hard feeling, but most of the men realized the necessity for national economy and accepted the situation as inevitable. The base wage scale was retained unchanged in most classifications.

Many park visitors have expressed appreciation of the improvement in the park highways, particularly the road from Obsidian Cliff to the Firehole Cascades and from Lake Butte to the east entrance, which were surfaced and oiled last year. Visitors no longer suffer from the dust nuisance as practically the entire loop road has at least received a palliative oiling. The new road from Canyon to Tower Falls over Dunraven Pass offers a splendid highway with fine views on both sides of Dunraven Pass. The two construction jobs which were underway, the one from the Mammoth Terraces to Obsidian Cliff and the one from Tower Falls to Lava Creek, interfered very little with travel and did not greatly inconvenience motorists going over these highways.

Due to a poor season last year, Roosevelt Lodge was not opened until July 1 and as little patronage was received at this lodge this year the operations were discontinued on August 1. Lake Hotel and Sylvan Pass Lodge closed on July 15, while Lake Lodge ceased operations for the season on July 28. The remaining lodges closed on September 6, after Labor Day, while Old Faithful Inn, Canyon Hotel and Mammoth Hotel accommodated visitors to the end of the official season, September 19. The transportation line continued to operate until the latter date.

The Yellowstone Park Transportation Company did not operate its garage in Gardiner during the winter, closing down activities about the first of October. It was not until April 1 when operations were again resumed and the plant operated with the minimum number of employees all summer. This was the first winter that the garage has closed for such a long period since it was erected in 1925.

The interests of Mr. George Whittaker in the park were purchased by Pryor and Trischman and they took over the operations of his business at Mammoth and Canyon on April 1, 1932. On July 2 the Department approved an agreement of transfer of the Whittaker contract to Pryor and

Trischman, and a new contract which will cover these operations was approved by the Department to become effective January 1, 1933.

Park visitors enjoyed seeing numerous wild animals and many an opportunity was had for good still and motion pictures. Moose were plentiful and were observed daily along the highways, especially at Willow Park. A band of antelope remained in the field inside the north gate and afforded much pleasure to park visitors entering and leaving via this gateway and also to those who made the trips to Gardiner with the game stalking caravans from Mammoth. Mountain sheep could be seen daily from Mount Washburn. Bears were numerous everywhere and were really the main source of grief to the park administration and campers. The bears had increased to such proportions and there was such a shortage of food due to the decrease of business at the hotels and lodges that they became exceeding bold, particularly around the campgrounds and housekeeping cabin areas, doing considerable damage to cars and property belonging to visitors and park operators. When Director Albright visited the park in August, he gave his consent to the disposal of surplus bears, both black and grizzly. Never before have so many complaints been received from visitors on account of the depredations of these animals, and it is felt that some loss in travel resulted from the undesirable publicity which the park received from newspapers and visitors.

A local chapter of the Federal Employees Union was organized in the park and on April 15, 1932, officers were elected as follows: C. A. Lord, President; George Miller, Vice President; William A. Wright, Secretary-Treasurer; Lloyd Holman, Guardian. The executive committee chosen consists of Margaret F. Sabin, R. R. Robinson and Francis D. LeNoue. Thirty-five members joined the chapter by the end of the summer.

Formal ceremonies dedicating the Stephen T. Mather memorial plaque were held at Madison Junction on July 4 near National Park Mountain where the national park idea was born in 1870 when members of the Washburn-Longford-Doane party were encamped near this site. Struthers Burt, well-known author and dude rancher, acted as chairman and the principal address was delivered by E. V. Robertson of Cody, Wyoming, representing the Governor of the State of Wyoming. D. W. Greenburg of Casper, Wyoming, presented the Mather plaque as a gift of the Stephen T. Mather Appreciation, of which he is a member, and Superintendent Toll accepted it on behalf of the National Park Service. The plaque was placed in a huge boulder in front of the Madison Junction Museum.

Ceremonies in recognition of the naming of Arthur, Plentycoos and Cody peaks, in honor of President Chester A. Arthur, Chief Plenty Coups of the Crow Tribe and William Cody (Buffalo Bill), were held on the east entrance road on July 3. These three peaks are located on the eastern boundary of the park and were hitherto unnamed. The names have been accepted by the United States Geographic Board.

ADMINISTRATION

Personnel.- The permanent personnel consists of Roger W. Toll, Superintendent; Guy D. Edwards, Assistant Superintendent; Joseph Joffe, Assistant to the Superintendent; Benjamin A. Hundley, Chief Clerk; Frank W. Watson, Disbursing Clerk; Parke W. Soule, Senior Clerk and Bookkeeper; Margaret E. Sabin, Senior Clerk; Viola E. Hutchinson (temporary employee in permanent position) and Mary Miller, Clerk-Stenographers; Virginia Goettlich, Timekeeper; Keith Neilson, Purchasing Clerk; Miriam J. Horkan, Clerk in the Chief Ranger's office. This force is augmented during the summer season with two clerk-stenographers two statistical clerks, one publicity clerk and one card clerk. Also, one clerk, Constance Whitney, assigned to the Superintendent during the winter at his headquarters office in Denver on work in connection with the inspection of proposed parks and monuments, is transferred to the park during the summer season. The maximum number of employees on the payroll at one time was 728, consisting of 71 permanent and 657 temporary employees.

Appropriations.- Appropriations for the fiscal year 1931-32 are as follows:

Roads and Trails, National Parks	\$26,982.87
Donations, National Park Service	8,750.00
" , Extension of Winter Feed Facilities	12,022.50
Emergency Reconstruction & Fighting Forest Fires, 1931-32	122,780.35
Forest Protection & Fire Prevention, 1931-32	16,300.00
*Yellowstone National Park, 1931-32	535,660.00

* \$1,000.00 additional reserved for Washington Office expenditures and 5,600 as an unallotted reserve; 3,540 also transferred to Field Headquarters.

Revenues for 1931.- Revenues aggregating \$237,381.34 were received from the following sources during the fiscal year and deposited in the Treasury of the United States as Miscellaneous Receipts:

Automobile and motorcycle permit fees	\$156,537.00
Franchise and permit fees	62,311.61
Electric current	3,246.45
Water	1,073.76
Miscellaneous	14,212.52

Franchises and Permits.- On April 1, 1932, Fryor and Trischman purchased the George Whittaker interests in the park and took over his operations at Mammoth and Canyon on that date. This necessitated a new franchise which was drawn up and approved by the Department on July 2, 1932, to become effective January 1, 1933. On July 2 the Department also approved an agreement of transfer of the Whittaker contract to Fryor and Trischman.

Eleven saddle horse permits and five permits for hauling over park roads to Cooke, Montana, from Gardiner, Montana, were issued during the year.

TRAVEL

Park visitors this year totaled 157,624 as compared with 221,248 last year, a decrease of 63,624. The rail travel figures were 8,572 as compared with 18,929 last year, a decrease of 10,357. A comparison of rail figures of this season and last year is as follows:

Gateway	1931	1932	Loss
North	6,693	3,242	3,451
West	8,872	3,746 *	5,127
East	3,203	1,524	1,679
South	161	60 #	100
Total	18,929	8,572	10,357

*Rail travel accredited to the west entrance during the tourist season of 1932 consisted of 2,721 persons via the Oregon Short Line Railway (Union Pacific System), 590 via the C.M.St.P.&P. (Gallatin Gateway terminal of the Milwaukee), and 33 persons from the Bozeman terminal of the Northern Pacific, plus 402 temporary employees of the Government and park operators.

#Rail travel through the south entrance consists of 33 persons entering from Victor, Idaho, on the Union Pacific System and 27 entering at Lander, Wyoming, from the Chicago and North Western Railway.

Automobile visitors by entrance gateways, as compared with last year are as follows: (This travel includes motorcycle and preseason automobile visitors.)

Gateway	1931	1932	Loss
North	41,304	33,525	7,779
West	70,229	50,173	20,056
East	67,968	47,537	20,431
South	22,141	16,512	5,629
Total	201,642	147,747	53,895

The number of cars and visitors reported at developed public camp grounds during the season of 1932 are as follows:

Designated Developed Camp Grounds	Cars	Campers
West Yellowstone	345	1,104
Fishing Bridge	7,896	25,267
Old Faithful	4,956	15,859
Mammoth	2,742	8,774
Lake	525	1,680

The first part of the paper is devoted to a general discussion of the problem. It is shown that the problem is equivalent to finding a solution of a certain system of equations. This system is then solved by the method of successive approximations.

Table 1			
x	y	z	w
0.0	0.0	0.0	0.0
0.1	0.1	0.1	0.1
0.2	0.2	0.2	0.2
0.3	0.3	0.3	0.3
0.4	0.4	0.4	0.4
0.5	0.5	0.5	0.5
0.6	0.6	0.6	0.6
0.7	0.7	0.7	0.7
0.8	0.8	0.8	0.8
0.9	0.9	0.9	0.9
1.0	1.0	1.0	1.0

The second part of the paper is devoted to a detailed analysis of the results obtained in the first part. It is shown that the results are in good agreement with the theoretical predictions. The accuracy of the calculations is estimated to be within 1%.

The third part of the paper is devoted to a discussion of the physical significance of the results. It is shown that the results are in good agreement with the experimental data. The physical significance of the results is discussed in detail.

Table 2			
x	y	z	w
0.0	0.0	0.0	0.0
0.1	0.1	0.1	0.1
0.2	0.2	0.2	0.2
0.3	0.3	0.3	0.3
0.4	0.4	0.4	0.4
0.5	0.5	0.5	0.5
0.6	0.6	0.6	0.6
0.7	0.7	0.7	0.7
0.8	0.8	0.8	0.8
0.9	0.9	0.9	0.9
1.0	1.0	1.0	1.0

The fourth part of the paper is devoted to a discussion of the physical significance of the results. It is shown that the results are in good agreement with the experimental data. The physical significance of the results is discussed in detail.

Table 3			
x	y	z	w
0.0	0.0	0.0	0.0
0.1	0.1	0.1	0.1
0.2	0.2	0.2	0.2
0.3	0.3	0.3	0.3
0.4	0.4	0.4	0.4
0.5	0.5	0.5	0.5
0.6	0.6	0.6	0.6
0.7	0.7	0.7	0.7
0.8	0.8	0.8	0.8
0.9	0.9	0.9	0.9
1.0	1.0	1.0	1.0

Designated	Developed	Camp Grounds (cont'd)	: Cars	: Campers
Carried forward			16,464	52,684
Canyon			1,205	3,857
West Thumb			1,059	3,388
Norris Junction			453	1,449
Madison Junction			1,115	3,569
Tower Falls			432	1,382
Total			20,728	66,329

Total Season Travel by Entrance Gateways
1932 and 1931

						Misc.		
		By Automobile	By Motorcycle	walk-	Fre-			
	Rail			ing,	season		Total	
	Visi-	Visi-	Visi-	horse-	visi-			
Gateway:	tors	Cars	tors	Cars	tors	back &	tors	Visitors
1932								
North	3242	10857	24923	13	19	756	8583	37523
West	3746	15350	43881	33	46	314	6246	54232
East	1524	15322	43215	54	79	215	4243	49276
South	60	5209	15966	8	12	20	534	16593
Total:	8572	46738	127985	108	156	1305	19606	157624
1931								
North	6693	13311	32474	23	32	217	8798	48214
West	8872	21407	63419	56	72	270	6738	79371
East	3203	21825	63230	67	100	147	4638	71318
South	161	7093	21257	13	15	43	869	22345
Total:	18929	63636	180380	159	219	677	21043	221248

EDUCATIONAL DEPARTMENT

The 1932 staff consisted of Dr. C. Max Bauer, Park Naturalist; George C. Crowe, Assistant Park Naturalist; Herma G. Bagglely, Junior Park Naturalist; Wilfred J. Mead, Janitor; and 22 ranger-naturalists. Dr. A. H. W. Povah, Park Naturalist in 1931, resigned on October 31, 1931, after serving his probational appointment, his place being filled by the appointment of Dr. Bauer on June 15, 1932. Mr. Norman W. Scherer filled the position of Assistant Park Naturalist until March 16, 1932, when he was transferred to Lassen Volcanic National Park, his position being filled by the transfer of Mr. Crowe from the Devils Tower National Monument. Four of the twenty-two ranger-naturalists employed for the summer season were designated as senior ranger-naturalists and supervised educational activities at the four major loop stations.

All of the museums were opened early in the season. Old Faithful was opened June 1. Mammoth Museum, which was completely redecorated on the interior, was opened June 4; Fishing Bridge, Norris and Madison

on June 17. Eight new exhibit cases were added at Mammoth. The Mammoth, Old Faithful and Fishing Bridge Museums were kept open to the close of the travel season. Madison closed on September 6 and Norris on September 15. The Biology Room in the Fishing Bridge Museum was opened to the public August 1 and the exhibits were completed by August 20. Much interest is shown in the museums and visitors enjoy many hours in them. The public is indebted to the Rockefeller Foundation for the funds which have made these museums possible. The construction program has been directed by the American Association of Museums. Dr. H. C. Bumpus, of the American Association of Museums, devoted one month, from June 27 to July 27, to supervising the museum work, and giving valuable advice on the educational program. He also prepared a set of trailside notes to accompany a complete series of shrines on the main loop road from Mammoth to Old Faithful.

Two open-air theatres were dedicated this year, the one at Fishing Bridge on June 20 and the one at Old Faithful on August 27. The architectural work on these amphitheatres, as well as that on the trailside museums, was done by Mr. Herbert Maier.

Dr. Frank R. Oastler, a member of the Educational Advisory Board of the National Park Service, spent most of the season in the park securing valuable still and motion pictures of wild life. Dr. Carl P. Russell spent the entire summer season working on museum problems and exhibits.

"Nature Notes" from Yellowstone Park are now issued eight times a year. There is a great demand for this publication.

Considerable attention has been given to trails to aid in nature guiding. The new Terrace-Forest Trail at Mammoth was completed and found to be very satisfactory. The trail over Geyser Hill is a fine addition to the work in the Upper Geyser Basin, and a similar trail is now being built in the Biscuit Basin.

Lectures, Guide Trips and Auto Treks.— These services rendered by the Educational Department have been well received by the visitors. A distinct effort has been made to make each contact of value to the visitor. Feeding visitors from one activity to another is not practiced, but the service rendered is of such a nature that the visitor desires further contact.



Summer Activities - Educational Department

Station	Field Trips		Lectures		Museums	Auto Caravans		
	No.	Att.	No.	Att.	Att.	No.	Cars	Att.
Old Faithful	277	16345	180	118560	83940	98	3348	12764
Lake	36	805	61	2496				
Mammoth	194	5386	245	16580	36638	117	1061	3689
Canyon	279	4685	114	12635		151	2060	7708
Norris	288	8044	175	5953	30994			
Fishing Bridge	87	2262	85	19069	32302			
West Thumb	92	6320	58	2930				
Mt. Washburn	510	7366	149	2165				
Madison Jct.	17	83	55	1779	6072	4	15	40
Tower Falls	141	3319	95	3089		13	17	58
Total	1921	54615	1217	185256	189946	383	6501	24259

GEYSERS AND HOT SPRINGS

Mammoth Hot Springs.- Monthly observations have been made throughout the year. There seems to be a seasonal change of the amount of water coming from the area. During the spring and early summer, the water issuing from all the springs is noticeably less. Dr. E. T. Allen of the Geophysical Laboratory, Carnegie Institution of Washington, D. C., reports that his observations indicate that the total amount of water issuing from the Mammoth Hot Springs has reduced about one-third in the last six years. On the other hand, during August there seems to be a general increase in amount of water, possibly indicating a three to six months' lag from the time of intake of water until it emerges in the Springs. This summer Hymen Terrace has been very beautiful. Jupiter, Orange Spring Mound, Minerva and Angel Springs have been about the same as last year. During August New Highland, Cleopatra and Baby Spring have increased in flow considerably.

Norris Geyser Basin.- This year Constant Geyser was again active, but Valentine Geyser was the largest and most spectacular. Whirligig was also very interesting. Emerald Pool started the season in a quiet, conservative manner exhibiting a clear, quiet pool. During July it became turbulent and eruptive. Eruptions occurred every forty-five minutes to a height of twenty to thirty feet. During August it again quieted down to a pool. Congress Pool dried up partially during August. In the Monument Geyser Basin one active vent is depositing gelatinous silica at a rapid rate.

A new map of Norris Basin has been prepared by a ranger on duty there and a careful check will be made to correct names which have been misapplied in recent years.

Lower Geyser Basin. - Great Fountain Geyser, erupting every nine or ten hours, is a very beautiful sight. A great fan of water is thrown to a height of over two hundred feet. The Fountain Geyser and Paint Pots attract many visitors. No change in their activity has been noted.

Date		Place		Patient		Physician		Hospital	
1917	Jan 1	Chicago	Ill.	John Doe	1234	Dr. Smith	1234	St. Mary's	1234
1917	Jan 2	Chicago	Ill.	John Doe	1234	Dr. Smith	1234	St. Mary's	1234
1917	Jan 3	Chicago	Ill.	John Doe	1234	Dr. Smith	1234	St. Mary's	1234
1917	Jan 4	Chicago	Ill.	John Doe	1234	Dr. Smith	1234	St. Mary's	1234
1917	Jan 5	Chicago	Ill.	John Doe	1234	Dr. Smith	1234	St. Mary's	1234
1917	Jan 6	Chicago	Ill.	John Doe	1234	Dr. Smith	1234	St. Mary's	1234
1917	Jan 7	Chicago	Ill.	John Doe	1234	Dr. Smith	1234	St. Mary's	1234
1917	Jan 8	Chicago	Ill.	John Doe	1234	Dr. Smith	1234	St. Mary's	1234
1917	Jan 9	Chicago	Ill.	John Doe	1234	Dr. Smith	1234	St. Mary's	1234
1917	Jan 10	Chicago	Ill.	John Doe	1234	Dr. Smith	1234	St. Mary's	1234

The following is a list of the patients who were treated during the month of January, 1917, at the St. Mary's Hospital, Chicago, Ill. The patients are listed in alphabetical order of their names. The first column shows the date of admission, the second column shows the patient's name, the third column shows the patient's age, the fourth column shows the patient's sex, the fifth column shows the patient's occupation, the sixth column shows the patient's residence, the seventh column shows the patient's physician, the eighth column shows the patient's hospital number, and the ninth column shows the patient's discharge date.

1917 Jan 1 John Doe 45 M Farmer 1234 St. Mary's 1234 1917 Jan 2 John Doe 45 M Farmer 1234 St. Mary's 1234 1917 Jan 3 John Doe 45 M Farmer 1234 St. Mary's 1234 1917 Jan 4 John Doe 45 M Farmer 1234 St. Mary's 1234 1917 Jan 5 John Doe 45 M Farmer 1234 St. Mary's 1234 1917 Jan 6 John Doe 45 M Farmer 1234 St. Mary's 1234 1917 Jan 7 John Doe 45 M Farmer 1234 St. Mary's 1234 1917 Jan 8 John Doe 45 M Farmer 1234 St. Mary's 1234 1917 Jan 9 John Doe 45 M Farmer 1234 St. Mary's 1234 1917 Jan 10 John Doe 45 M Farmer 1234 St. Mary's 1234

Upper Geyser Basin.- No important changes have taken place in this basin. The Jewel Geyser is the new handkerchief pool and is very efficient and spectacular. Sapphire Pool attracts much attention. Giant Geyser has erupted twice. Grand Geyser, one of the most beautiful, erupts about once each day. Riverside Geyser has been fairly regular and, since it has an indicator, it is visited by many people. Daisy Geyser also has an indicator and has been seen in action by many people on the auto caravan, known as "Chasing Geysers". It is different in its character, most of the water returning to the crater after an eruption. Old Faithful has continued to play on an average interval of about sixty-three minutes during the past summer, with the same beauty that has made it famous. Its individuality is expressed by the fact that several times it has shortened its interval by ten minutes and at other times it has lengthened it by ten minutes.

West Thumb Basin.- Lakeside Geyser has not been seen in eruption this season. Twin Geysers which have for sixty-two years erupted at six to ten minute intervals to a height of three to four feet, surprised everyone by breaking forth at 7.30 p.m., August 26, throwing rocks, sticks and roots across the road seventy-five feet to the west. At 7.45 a.m., August 27, both orifices threw water and steam to a height of seventy-five feet. Again on the same date the Twin Geysers erupted at 10.15 p.m. considerably higher than the lodgepole pine trees nearby. Whether this geyser will continue such great activity cannot be foretold.

PROTECTION DEPARTMENT

General.- The change in the organization of the Protection Department, under which the park was divided into eleven summer districts and combined into nine districts during the winter, with a district ranger in charge of each, has proven a success, during the past year. All permanent rangers were assigned to districts, stations and special details as the occasion demanded.

Only one large fire, consisting of 2,020 acres, interfered with the many summer duties of the Protection Department and therefore the services rendered the visitors to Yellowstone were of a great deal higher standard than last year.

Personnel.- The personnel consists of George F. Baggeley, Chief Ranger, three assistants chief ranger, twenty-four permanent rangers, one Chief Buffalo Keeper, one assistant Chief Buffalo Keeper, one buffalo herder, one night watchman and forty-three temporary rangers.

Winter Activities.- Winter activities consist of the usual and special patrols for the protection and observation of the wild life and waterfowl; also, for the observation of snow depths, weather conditions, river gaging stations, study and research on assigned subjects (game), maintenance of telephone lines, care of buildings, feeding of game, predatory animal control and special assignments to game study and forestry work.

Summer Activities.- Summer activities consist of manning the checking stations, traffic control, fire prevention and suppression, law enforcement, dispensing information, contacting the public and special visitors, rationing and repairing of snowshoe cabins, trail maintenance and construction, fish propagation and special assignments.

Forestry.- Extensive surveys were made during the fall of 1931 in all known mountain pine beetle infested areas in the park, to determine the seriousness of the infestation. Surveys of this type were made also on all U. S. Forest Service timbered areas surrounding the park in which mountain pine beetle was known to be present. The results of the surveys inside and outside of the park indicate that further effort towards the control of the mountain pine beetle epidemic was impracticable, except on a small scale in areas of intensive recreational use, where it may be possible to save some of the trees.

Surveys of the same type will be made again this year in order to recheck the infested areas and determine the increase or decrease of the attacks.

All field work completed upon the forest insect and type map survey was brought up to date with tracings made and data compiled during the winter. No funds were appropriated for the continuation of this work in 1932.

During the spring the trees in the Mammoth camp ground and surrounding the hospital were again sprayed in an effort to save the more hardy trees from heavy attacks of pine leaf scale, aphid and spider mite.

Many ips infested trees were removed from the camp ground at Old Faithful and Lake during the summer.

Regulated cutting of trees and proper disposition of slashings is required of all timber users. A considerable number of permits for the cutting of fuel wood and building material have been granted during the summer, and have required supervision by rangers throughout the park.

Fire Protection.- The fire protection program for Yellowstone National Park was changed considerably following the 1931 fire season. The new program requires enlargement and standardization of all fire tool caches in the park, an increase in the number of trails and transportation facilities, better trained personnel and, in general, a reorganization of all fire protection facilities to meet any serious emergency as well as normal conditions during fire seasons in the park. Many steps towards the completion of this program, which will require several years' time, have been taken during the past year. All fire equipment on hand has been reconditioned and segregated into outfits necessary to fully equip units of six men, fifteen men, and twenty-five men, respectively. These various sized units are placed in caches at different ranger stations and are ready for speedy access. Enough equipment for 150 men in units of six, fifteen and twenty-five each complete is kept at park headquarters.

For obtaining better forecasts of fire weather danger, a fire weather meter for measuring the moisture content of twigs and ground litter has been installed at West Yellowstone. Daily humidity readings are also secured from West Yellowstone and Snake River. Data on fire weather danger is tabulated in the Chief Ranger's office daily throughout the fire season.

Three important fire conferences were held throughout the year: One, between the heads of all Government departments in the park, and the Protection Department for discussion of fire principles and cooperation; one between the National Park Service officials and the United States Forest Service officials of surrounding national forests for discussing cooperation in fire protection; and three one-day fire training conferences for training park personnel in methods and principles in fire protection.

During the 1932 fire season we have had three observers stationed on permanent lookouts on Mt. Holmes, Mt. Sheridan and Mt. Washburn. One observer has been stationed temporarily on Mt. Chittenden.

June and July, unlike last season, received practically normal precipitation and no fires of any consequence were recorded, although several small fires were quickly suppressed during this period. August was very hot and dry and during the latter part of the month a serious fire hazard existed.

Severe lightning storms, the latter part of the month, produced many fires in remote areas and all except one of these were promptly detected and speedily suppressed. One fire, the Mirror Plateau fire, is believed to have been started on August 20 by lightning. It smoldered in a heavy stand of spruce and fir in a blind area for two days before a small visible column of smoke was followed within one hour by a severe blow up. The character of timber in which the fire originated, coupled with the long distance necessary to travel by foot before suppression work could be undertaken, allowed the fire to spread rapidly. The final area of the fire was estimated at 2,020 acres. Approximately 165 men were engaged in suppression work during the peak of the fire, which was under control after the third day. Rain and snow completely extinguished the fire one week after it was discovered.

During the 1932 season we had a total of 28 fires in the park, the largest of which (Mirror Plateau) burned approximately 2,020 acres. Lightning was responsible for 11 fires which were the most dangerous, although 12 fires were caused by careless campers and smokers.

Trail Construction, Maintenance and Improvements.— A crew of six men has repaired and improved the entire Howard Eaton Trail following the loop road. Two-man trail crews at all of the main centers of activity were kept busy on maintenance and minor improvements of trails.

Buffalo Ranch Activities.- Buffalo Ranch activities consisted mainly of the care of the buffalo herd, repair and maintenance of equipment, irrigation and cultivation of hay fields. During December, 1931, two hundred surplus buffalo were slaughtered, some of the meat of which was given to the various Montana Indian agencies for actual cost, the balance distributed to the needy through the relief organizations in Montana, Idaho and Wyoming.

At this ranch, 443 tons of hay and 56 tons of cottonseed cake were fed to 800 head of buffalo last winter. Hay harvested at this ranch this year was 476 tons as compared with 270 tons last year and 150 tons in 1930. Even with the greater amount of hay harvested this year, it will be necessary to supplement our buffalo feed with about 40 tons of cottonseed cake.

It is our contention that the Mountain or the Cold Creek-Pelican Creek herd of buffalo, which last year numbered only ten, has intermingled with the main herd, as only an occasional animal was reported from that vicinity. Therefore, we are dropping the Mountain herd from the game table.

Hay Ranches.- The wild animals were fed on the Slough Creek, Game Preservation and Gardiner ranches. At these three ranches 691 tons of hay were fed as compared with 238 tons last year and 555 tons in 1930. There was no hay left over from last year as compared with 205 tons in 1931. Even with this 205 tons of hay on hand for the feeding of game during the winter of 1931-32, it was necessary to purchase two carloads of hay for feeding the elk in the vicinity of Gardiner. One carload of this hay was purchased by the Park Service and the other by the Montana State Game Department. This year 201 tons of hay were harvested at the Upper Slough Creek Ranch, 269 tons at the Lower Slough Creek Ranch, 30 tons at the Yancey Ranch, 60 tons at the Gardiner Ranch, and 30 tons at the Game Preservation Ranch. A total of 1,134 tons of hay were fed to game during the winter as compared with 739 tons last year and 1,075 tons in 1931.

Predatory animals.- One hundred and nine coyotes were destroyed this year as compared with 98 last year and 135 in 1930.

It was our plan to continue the monthly game census which was inaugurated during the winter of 1929-30 in lieu of the annual game count, but due to the adverse weather conditions it was an impossibility to make a count each month. However, the game counts obtained this winter are considerably better than those obtained for several years.

Wild Life of the Park.- With only a few days of sub-zero weather and few storms of last year as compared with the many successive days of sub-zero weather and continuous storms and high winds this year, our game herds came through the winter in a much better condition than was anticipated. The losses this winter were not excessive when it is considered that the past few light winters have not disclosed very many winter kills.

Counts of game animals were made in January and April. In the game table it should be noted that, wherever this year's count exceeded last year's estimate, the actual number counted is used for this year as actual counts are more valuable than estimates. Wild life conditions as observed and reported by park rangers throughout the year are summarized in the following table:

Wild Animals	Actual Counts		Estimated Numbers		Increase		Condition
	1931	1932	1931	1932	1931	1932	
Antelope	646	668	646	668	Yes	Yes	Good
Buffalo	1182	1016*	1182	1016**	Yes	Yes	Excellent
Deer	706	885	800	885	Yes	Yes	Good
Elk-Northern herd	7696	10624	10600	10624	Yes	Yes	Good
Elk-Interior park herd	--	672	--	672	-	-	Good
Elk-Gallatin herd	--	2499	--	2499	-	Yes	Good
Moose	54	90	700	700	No	No	Excellent
Sheep	101	79	150	150	No	No	Poor
Bears (Grizzly)	119	113	167	213 ⁴ / ₇	Yes	Yes	Excellent
Bears (Black)	357	306	465'	517"	Yes	Yes	Excellent

*Does not include 22 shipped and 200 slaughtered.

**Does not include an estimated 175 for this year's calf crop.

'Does not include 44 killed as dangerous.

"Includes 10 killed as dangerous after counts & estimates were made.

⁴/₇Does not include 3 killed as dangerous and 5 shipped to zoos.

Bears, black.- The black bear estimate this year is 517 as compared with 465 last year and 490 in 1930. It was necessary in view of the damages and injuries caused by the bears to instigate control measures.

Bears, grizzly.- The usually large numbers of grizzly bears, all in good condition, were seen evenings during the summer at the bear feeding grounds at Old Faithful, Lake and Canyon. Five grizzly bears were shipped to various parks and zoos. Three grizzlies which were becoming dangerous and entering camp grounds were disposed of during the summer.

The interiors of three snowshoe cabins were wrecked by grizzly bears. Estimated number of grizzlies this year is 213; last year 180, and 167 in 1930.

Smaller animals.- Large numbers of beaver, marten, marmots, etc., were seen over the entire park and created a great deal of interest for the visitors.

Waterfowl.- Ducks, geese, swans and other birds were observed in the usual large numbers during the past summer and fall.

Fish Planting.- The following table gives the operations of the Bureau of Fisheries at the Lake Hatchery and Mammoth rearing pools for the year 1932:

Statement of Operations of Bureau of Fisheries
Lake Hatchery

Eggs

Total eggs taken		17,519,000
Egg loss	1,812,300	
Shipped Bureau of Fisheries Acct. . .	7,331,600	
Park Service Account:		
(a) Ashton, Idaho	400,100	
(b) Glacier Park	558,350	
Mt. Rainier Park . .	200,000	
Hatched at Yellow-		
stone	7,625,000	8,783,450
	(b)	<u>17,927,330</u>
		<u>17,519,000</u>
(a) Shipped to Ashton state hatchery for hatching and planting in Bechler River district on 50/50 shares.		
(b) 150,000 shipped from Yellowstone Park		
408,330 shipped from Bozeman, Mont., hatchery		

Fish

Eggs retained for hatching at Yellowstone lake	7,625,000	
Loss on fry	70,000	
Shipped Bureau of Fisheries Acct. . . .	250,000	
Shipped Park Service Acct. (Teton rearing pools) . .	250,000	
Distributed in Yellowstone Park to date (Aug. 31) . .	6,555,000	
On hand (Mammoth rearing pools) . . .	500,000	
	<u>7,625,000</u>	<u>7,625,000</u>

Mammoth Rearing Pools and Soda Butte
Year Ending Aug. 20, 1932

Planted - Fingerlings #2 to #5

Rainbow	116,500
Brook Trout	134,500
Blackspotted Trout	367,500

On hand August 20, 1932

Rainbow Trout	98,700
Loch Leven	47,000

ENGINEERING DEPARTMENT

Engineering features are under the supervision of Park Engineer C. A. Lord, with activities covering road and trail maintenance and construction, engineering in connection with the construction of physical improvements such as buildings, sewers and water systems, and professional assistance in cooperation with other departments.

A total of 371 miles of highway are under maintenance by park forces, 43 miles of which are parts of the south and east approach roads maintained under special appropriations. There are 210 miles comprising the main loop system and connecting roads from the four principal entrances, 45 miles of subsidiary roads leading to points of special interest adjoining the main highway or sections that must be maintained for administrative purposes, and 75 miles of service roads.

Maintenance activities include five distinct items, snow removal, heavy maintenance, light maintenance, road oiling, and roadside cleanup maintenance, items two, three and five being taken care of by section crews located in permanent camps at suitable places on the system, while items one and four are carried on by crews specially organized for the purpose.

A Snogo rotary snow plow was purchased in the spring and operated very satisfactorily aiding us very materially in the opening of the park roads.

Of the above mileage enumerated for the main loop system, 94 miles have been reconstructed to approved standards as to width, grade and alignment and 50 miles of these rebuilt sections have been paved with oil or asphalt treated crushed rock and gravel, and the balance, not under reconstruction, oil treated for dust prevention and the maintenance of better surface conditions.

Roadside cleanup with project funds has been carried on over Artist Point, Inspiration Point, Obsidian Cliff to Firehole Cascades, and the east entrance road sections, increasing our mileage now under maintenance for that activity to 200 miles.

Permanent asphaltic oil surfaces constructed by force account with park forces have included 10 miles of the Lake Shore road, 5 miles between Gardiner and Mammoth and the 22 mile section of the West Gallatin road, the latter project including surfacing with crushed rock as well as oiling.

The project of installation of standard type metal signs is practically complete so far as the erection of road cautionary, direction and information signs is concerned, 462 of this type now having been placed with approximately 60 per cent of the work being done during the past year.

Construction of the Mammoth sewer system, programmed as a two year project was completed during the year, work for this year consisting of the installation of mains and service connections and the construction of sludge beds and chlorination chambers.

Approximately one and one-half miles of permanent walks or trails with emulsified asphalt surface were constructed over the thermal areas at Old Faithful, divided, one mile over Geyser Hill and one-half mile at the Biscuit Basin area.

Numerous small parking areas were built at various points and more detailed construction carried out at the Madison Junction Museum and at the Fish Hatchery at Lake.

Post construction maintenance has been in progress on projects recently completed by contract as follows: Obsidian Cliff-Firehole Cascades, Canyon Junction-Tower Junction, and that section of the east entrance road between Lake Butte and the entrance, work consisting of the removal of slides, repair of settlement in heavy fills, and the installation of additional drainage facilities.

The following projects constructed by contract under the supervision of the Bureau of Public Roads have been completed: Surfacing and oiling of the east entrance road section, surfacing and oiling of the Obsidian Cliff-Firehole Cascades section, grading of the Obsidian Cliff-Terraces project and the grading of the Canyon-Tower Junction section to Tower Falls. The Tower Falls-Blacktail Deer Creek section is 85 per cent complete and a contract has been let for the construction of the Tower Creek bridge on that section. Proposals for bids are now being advertised for the surfacing of the Canyon-Tower Falls section and the grading of the Golden Gate and Blacktail Deer Creek-Mammoth projects.

SANITATION DEPARTMENT

This work is carried on under the supervision of H. B. Hommon, of the United States Public Health Service, and under the direct charge of William W. Wiggins. Mr. Hommon made a thorough inspection of our entire operations during the latter part of June and early July and outlined necessary corrective measures. Mr. Wiggins makes regular sanitary inspections as outlined by Mr. Hommon.

The construction and improvement work this year consisted of the following: oil burning vacuum heating system installed in south end of barracks building; heating system north end barracks building renovated to supply heat for Post Office. New oil burning vacuum system installed in guard house to replace old coal burning boiler which burst last winter. Completed new comfort station at Mammoth Auto Camp. Installed oil burning equipment and two steam boilers in bachelor building as a central heating plant for bachelor building, guest house and post-master's quarters, and superintendent's residence. Water system in new ranger dormitory and mess house at Old Faithful. Sewer system with concrete disposal tank, Lake mess house and bunk house. Excavated and laid 800 feet water pipe to supply bunk house and mess house at Lake. Constructed sewer disposal plant with concrete tank for mess house and bunk house at east entrance. Water system at Tower Falls to supply mess house, bunk house and stable. Extension of auto camp at Fishing Bridge, including construction of 5,200 feet driveway 20 feet wide, moving ranger station to new entrance and installing of 5,000 feet of separation rail. In addition, 16 water systems, 20 sewer systems, 6 incinerators and many camp grounds at various places in the park were operated and maintained by this department. The heating system at Mammoth, which includes nine steam boilers was also operated and maintained by this department.

ELECTRICAL AND TELEPHONE DEPARTMENT

This department is in charge of Chief Electrician Charles C. Dale, and includes three permanent power plant operators and one permanent telephone operator.

The following table shows production of power plant at Mammoth and the distribution of current:

	<u>1931-32</u>	<u>1932-33</u>
Sold to park operators	76,426.6	64,253
Street lighting	32,083.0	25,491
Used by Government buildings		
for power and light	<u>670,882.4</u>	<u>647,396</u>
	779,392.0	737,140

The usual electrical and telephone maintenance work was carried out, and 542 miles of circuit and 196 telephones were maintained.

New telephone line was strung on Bell Company poles from Gardiner to the Game Preservation Ranch. The last 8 miles of telephone line between Thumb and the south entrance were rebuilt with No. 8 solid copper wire for better transmission. Approximately 14.5 miles of line from Lake to the east entrance were rebuilt with No. 8 copperweld wire. We now have metallic circuit between Lake and Snake River and from Lake to the east entrance.

All meters in the power plant have been recalibrated.

BUILDING MAINTENANCE AND CONSTRUCTION

All carpenter work is under the supervision of Master Carpenter T. A. Bowman. All painting is under the supervision of Master Painter L. N. Tompkins. The construction and improvement work for this year consisted of the following: a new mess house at Lewis River, a new naturalist's quarters at Old Faithful, a new ranger station at West Yellowstone under construction by contract. The old mess house at Old Faithful was moved back into the utility area and remodeled into a four room house for the senior ranger naturalist. The stables at West Gallatin and Lake road camps were remodeled into bunk houses. Three chlorine houses were constructed at Mammoth to be used in connection with the new Mammoth sewer.

MECHANICAL DEPARTMENT

This department is in charge of Master Mechanic Robert R. Robinson and includes six permanent mechanics, one permanent blacksmith, two temporary mechanics and two temporary blacksmiths. New equipment and trucks purchased during the year include the following: trucks - one 3-ton; three 2-ton; six $1\frac{1}{2}$ -ton; three $1\frac{1}{2}$ -ton; three $1\frac{1}{4}$ -ton. Two motorcycles; three motor graders, one rock crusher and screening plant; one gasoline road roller; one Snogo rotary snow plow; one emulsion patcher; one sand and gravel dryer; and one concrete mixer.

PARK OPERATORS

The decrease in travel and the general depressed condition throughout the country resulted in a very poor financial season for the operators. The loss in rail travel particularly affected the hotels, lodges and transportation line, but all operators recorded a considerable decrease under last year, which was also a poor year from the standpoint of the operators. As the facilities available were sufficient to take care of the need of park visitors, very few improvements or additions were made. The construction program for the operators is practically at a standstill until business is again on the increase.

Additional facilities completed or under construction during the year by the various public operators are as follows:

Yellowstone Park Hotel Company

As the hotel facilities were ample to take care of all visitors, no improvements or additions of importance were made. The roof of Old Faithful Inn and the wing of the Mammoth Hotel were painted.

Yellowstone Park Transportation Company

On account of the decrease in rail travel, there was a surplus of available buses. No new buses were purchased and only sufficient drivers were employed to satisfactorily handle the equipment in service.

Yellowstone Park Lodge and Camps Company

Extended main water line at Mammoth Lodge and installed fire plug. Repaired main building and individual lodges at Mammoth. New hose reel purchased for Mammoth housekeeping unit. Street in Mammoth camp graveled. Sewer line in lower toilet and washroom building extended to new Government line at Mammoth camp. Repairs made at Old Faithful Lodge - removing dead trees, stumps, etc. Constructed 400 feet six inch water line for fire protection at Old Faithful Lodge. New Cascade washer and two extractors installed in Lake Lodge laundry. Erected new 100,000 gallon steel water tank in connection with which a new booster pump will be operated. Considerable general repair work done at Canyon Lodge. Sylvan Pass Lodge, Roosevelt Lodge and Tower Falls housekeeping cabins all received minor repairs.

Haynes Picture Shops, Inc.

Installed Celotex in shops at Mammoth Hotel, Mammoth Lodge and Lake Lodge and redesigned some of counters. Connected buildings with new sewer line at Mammoth. Cleaned up and landscaped grounds around Mammoth properties. Put up overnight quarters for motorcycle carriers in Norris road camp. Moved two buildings, 12 feet by 24 feet to Thumb and Tower Falls, to serve as picture shops. Terminated West Thumb agency, operated temporarily by Hamilton's store.

Pryor and Trischman

The Park Curio Shop, general stores and cafeteria have all received general repairs and some minor items of equipment.

Yellowstone Park Fuel Company

Discarded old canvas top and installed new rubberoid-covered take-down wooden roofs at Mammoth and Old Faithful units.

COOPERATING BUREAUS

The Bureau of Public Roads of the Department of Agriculture, the United States Public Health Service of the Treasury Department, the Bureau of Entomology of the Department of Agriculture and the Bureau of Fisheries of the Department of Commerce have all cooperated to the fullest extent with officials of the National Park Service in Yellowstone Park during the year just closed.

Post Office

"Yellowstone Park, Wyoming" post office is maintained the year around. From this, five postal stations are established for the tourist season. Old Faithful and Fishing Bridge postal stations are handled as classified stations, and Lake Outlet, Canyon and Tower Falls as contract stations. All are located in general stores at the five points named. The stations are connected with the main office by star

routes, which also serve road camps, ranger stations, etc., along the routes.

The main office, located in a Government building at Mammoth Hot Springs, has heretofore moved in summer to larger quarters than are needed in winter; but this year the summer quarters have been equipped with a heating plant and modified to permit their use all the year, thus saving the trouble of moving back and forth, and releasing the space which was used for winter quarters so it can be used for other purposes.

The amount of business transacted during the season to date indicates at this time a probable decrease of approximately 40 per cent from the season of 1931, which is a greater decrease by about ten per cent than is shown in park travel. Statistics indicate that the average mailing of each visitor to the park is approximately four pieces, mostly post cards.

WEATHER

August, 1931, the closing month of the last summary, averaged 1.7 degrees above normal in temperature. Only three months since have been above normal, these being October, plus 0.5 degree; February, plus 1.5 degrees; and July, plus 0.3 degree. The greatest negative departures were in November, minus 4.7 degrees, and March, minus 4.9 degrees. No temperature records have been broken during the twelve months except records of extremes: 62 degrees, the maximum on November 5, was the highest temperature ever observed in November; 49 on December 18 was the highest ever observed in December; and 55 on February 28 was the highest ever observed in February. The autumn descent of mean temperature, and the winter descent to February, were continuous if not regular. March, as a result of markedly subnormal temperatures during that month following the above-normal temperatures of February, averaged less than half a degree per day warmer than February. The seasonal rise beginning with the month of March continued to, and included, August, but extraordinarily cool weather closed that month. Minimum temperatures below freezing were recorded on August 30 and 31, with heavy frost on the latter date, and snowfall amounting to nearly two inches on the 30th. Not more than a trace of snow is on record for any other August in the period covered by Weather Bureau records, which begin with August, 1887. The month of March was the coldest in fifteen years, and the lowest temperature of the winter, -19 degrees, occurred on March 11. Daily maximum temperatures were above the thawing point every day in April. July, with an average temperature of 61.8, was the warmest month, but the highest temperature observed during the twelve months was 87, on August 17.

Frost first appeared at Mammoth in September, with a heavy frost on the 14th preceding the first light frost on the 15th. The first killing frost was observed on September 23. In the spring no killing frosts were noted in or after May, but heavy frosts occurred occasionally until June 7, the date of the last, and light frost was recorded as late as the morning of July 5. On that morning the minimum thermometer read 34 degrees.

The snowfall season was remarkable for the total produced. After light falls in September, every month from November to May, inclusive, excepting only February, was above normal in the total of its snows. The seasonal total was 122.0 inches, which does not, of course, include the snowfall of August, 1932, above mentioned. The total was approximately 24 inches above normal, and was the greatest since the winter of 1916-1917. It has been exceeded only four times in the period of records. The greatest average depth on the ground during the winter was 27.5 inches on February 1, which day produced the greatest snowfall of the whole winter season, only 7.2 inches. On January 31 and February 1 together the snowfall amounted to 10.1 inches. Thus there were no really heavy snowfalls. The season was characterized rather by frequent light to moderate snowfalls. Moreover it was deficient in water content. Every month of the twelve, notwithstanding the notable total snow depth, was below normal in the actual moisture precipitated excepting September, when there was the small excess of 0.03 inch, and June, when the excess was 0.18 inch. June, with 2.10 inches, was the month of greatest precipitation; February, with 0.70, the month with least.

Sunshine was recorded during greatly varying percentages of the possible time, ranging from 32 per cent in December, to 72 per cent in July, the possible time for any month being the sum of the daily intervals between sunrise and sunset. February was out of line with a percentage of possible of 49, while January and March each showed 38. The percentage decreased from September, with 62, to December, and it increased from March to the maximum of 72 per cent in July.

MISCELLANEOUS

Vital Statistics.- There were two deaths due to accident and five due to natural causes, one birth and no marriages. Dr. F. L. Gailmard, park physician, resigned effective November 30, 1931; Dr. Ivan T. Sudaeff appointed his successor December 1, 1931.

Religious Services.- The Government Chapel which is located at park headquarters and maintained for general use of all denominations, was used every Sunday during the tourist season. Roman Catholic masses were held every Sunday morning at 6.00 o'clock and 8.00 o'clock during the months of July and August. Protestant services were held at 10.30 a.m. and 8.00 p.m. every Sunday during the tourist season, ministers from adjoining states and more especially from Livingston, Montana, officiating. Denominations represented were English Lutheran, Episcopal, Baptist, Congregational-Christian, and Methodist. During the winter, the ministers of the Episcopal and English Lutheran churches at Livingston, Montana, visit the park frequently and conduct services for the benefit of the permanent residents.

Visitors.- After the close of the 1931 season, Mr. and Mrs. John D. Rockefeller, Jr., visited the park in early October enroute to the Grand Teton Park, where they spent a couple of weeks. Billy Sunday, noted evangelist, made two visits to the park in October. The American Society of Civil Engineers held their annual convention at Old Faithful Inn from July 6 to 8 and many of the leading engineers of the country

attended, including the president of the association, Herbert S. Crocker; L. G. Holleran of the Westchester County Park Commission; H. M. O'Shaughnessy, for many years city engineer for San Francisco; and Dr. Elwood Mead, Commissioner of Reclamation.

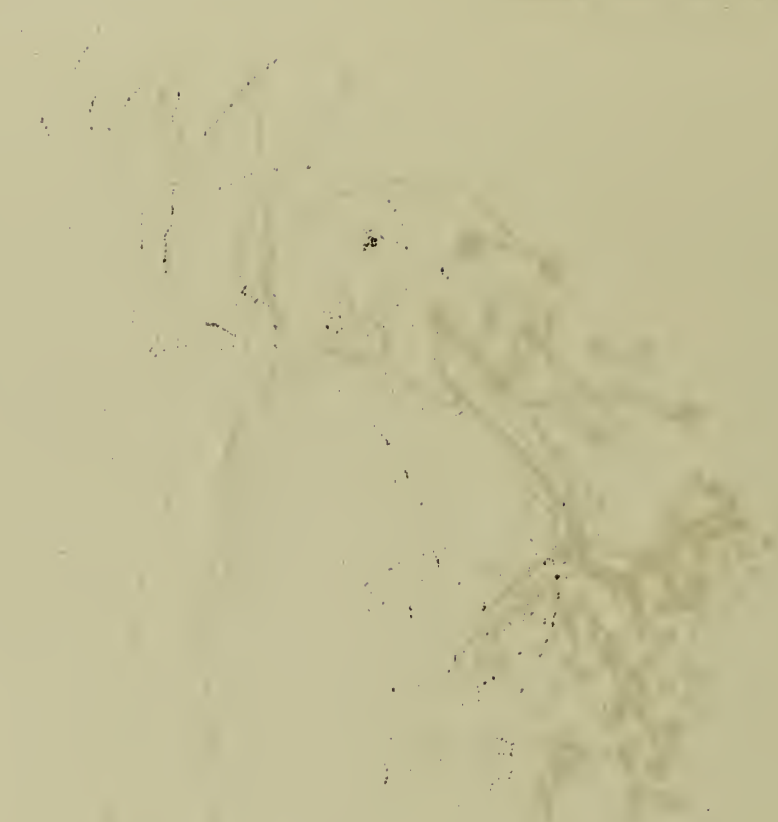
Many prominent persons visited the park during the past summer, including the Director of the National Park Service, Horace M. Albright; Breckenridge Long, Washington attorney and Assistant Secretary of State under President Wilson; Ralph Budd, President of the Burlington Railroad; John W. Davis, Democratic candidate for President in 1924 and prominent Democratic leader; Professor Henry Fairfield Osborn, President of the American Museum of Natural History; Sir Charles Mander, one of the leading Rotarians of England, and Lady Mander; Prince Frederick of Prussia, fourth son of the Crown Prince of Germany; Charles B. Seger, Director of the Union Pacific System; J. E. Weller, Vice President of the Pennsylvania Railroad; Marion Talley, Grand Opera star; and Dorothy Mackaill, motion picture star. Being an election year, few members of Congress and political leaders found it possible to visit the park, only one Congressman being listed, Honorable Phil D. Swing of California.

Other prominent visitors included three nationally known artists, Sidney Laurence, Harry B. Wagoner and Gustav Krollman; C. H. Ramsdell, Minneapolis architect and member of the President's Boundary Commission; Struthers Burt, well-known author and dude rancher; three members of the Educational Advisory Board of the National Park Service, Dr. H. C. Bumpus, Dr. Frank R. Oastler and Dr. Wallace W. Atwood; Dr. E. Brumpt, noted French scientist; Professor H. E. Chapman, head of the Forestry School at Yale; Dr. John Hammond, Cambridge University; Professor Herman Schlundt, Chairman of the Committee on Geologic Ages; Dr. Richard M. Field, noted geologist from Princeton University; General Hugh L. Scott, U.S.A., retired, famous Indian fighter and chairman of the New Jersey Highway Commission; Rear Admiral Walter S. Crosley, U.S.N.; Colonel Claude E. Brigham, Chemical Warfare Service, U.S.A.; J. V. Bennett, Assistant Director of Prisons; Dr. Harold C. Bryant and G. A. Moskey, Assistants Director of the National Park Service; Rene Weiller, French Consul at Chicago; Captain Patrick Macnamara, British Embassy, Washington, D.C.; Edward H. Groth, American Consul at Copenhagen, Denmark; C. M. Dunbar, Past Imperial Potentate of the Shrine; Fred A. Healy, Vice President, Curtis Publishing Company; Eltinge F. Warner, publisher of Field and Stream; P. J. McGahan, Washington representative of the Philadelphia Inquirer; Isaac Kashdan, chess master; Judge Herbert F. Seawell, member U. S. Board of Tax Appeals; Judge Albert J. Galen, Associate Justice, Supreme Court of Montana; Paul Shirley, conductor of the Little Boston Symphony, musician and broadcaster; John A. Stevenson, Vice President, Penn Mutual Life Insurance Company; R. M. Clark, General Traffic Manager, Northern Pacific Railroad; A. Cotsworth, Passenger Traffic Manager, Burlington Railroad; William F. Greeley and O. E. Van Norden, conservationists and members of the Camp Fire Club of America; Robert B. Grove, Vice President of the New York Edison Company; E. Dana Johnson, editor of the Santa Fe New Mexican; Childs Frick, American Museum of Natural History; Dr. Carl S. Patton, Pastor of First Congregational Church, Los Angeles; A. L. Scully, prominent sportsman and conservationist of Pittsburgh; F. W. Scheidenhelm, consulting engineer on Hoover

Dam project; Kurt Sell, correspondent for leading German newspaper associations; Miss Dathie Stuart, representative of the Government of New Zealand; Fred Morrell of the Public Relations Branch of the U.S. Forest Service; Lorenzo del Riccio, President of the Cinellog Corporation of New York City; F. P. Clatworthy, leader in colored picture photography; Dr. E. T. Allen of the Geophysical Laboratory of the Carnegie Institution; several American Legion parties enroute to and from the Portland, Oregon, convention; and many other leading business, professional and scientific men and women.



The following table shows the results of the experiments conducted at the University of Cambridge, England, in 1871. The experiments were conducted by Mr. J. D. Everett, and the results were published in the "Philosophical Magazine" for 1872. The table shows the results of the experiments for the years 1871 and 1872, and the results for the years 1871 and 1872 are given in the following table.



24

United States
Department of the Interior
National Park Service
Yellowstone National Park
Yellowstone Park, Wyoming

MORANDUM FOR THE PRESS

lease on receipt

YELLOWSTONE PARK TRAVEL

Yellowstone Park, Wyoming. October 00, 1932. The economic condition of the country had its effect upon the tourist travel during the past year, according to the travel statistics just compiled, at Yellowstone Park. Travel statistics have been kept for the past fourteen years. Each year showed an increase over the preceding year until 1929, but the last three years have shown consecutive decreases.

This travel year compares approximately with the year of 1925 when 4,282 visitors entered Yellowstone Park.

The total travel this year was 157,624 visitors as compared with 1,248 last year, 227,901 in 1930 and 260,697 in 1929, the high record. There was a decrease of 63,624 visitors, or about 29 per cent below the figures of last year. Nineteen thousand six hundred and six visitors arrived prior to June 19, the official opening date, as compared with 495 visitors prior to the official opening date last year.

Private automobile travel was admitted at the North and West Gates May 28, East Gate on June 2 and South Gate on June 16, which opening dates were several days later than the opening dates for last year.

The travel this year is classified as follows:

Rail visitors.....	8,572
Automobile visitors.....	127,985
Motorcycle visitors.....	156
Visitors on horseback and afoot.....	1,305
Pre-season visitors, unclassified.....	19,606
Total.....	157,624

One hundred forty-seven thousand five hundred and ninety-one automobile visitors toured the park in 46,733 cars, as compared with 201,423 visitors in 63,636 cars last year. There were also 156 visitors on 108 motorcycles, as compared with 219 visitors on 159 motorcycles last year.

Travel by Park Gateways

Rail and motor travel, both entrance and exit, favored the Western Gateway this year. There were 50,173 entrance auto visitors traveling in 15,383 cars at the West Gate, as compared with 47,537 traveling in 15,376 cars admitted at the Cody or Eastern Gateway; 33,525 people traveling in 10,870 cars were admitted at the Gardiner, or Northern Gateway, and 512 visitors in 5,217 cars were admitted via the Snake River or South-Gateway.

The entrance rail travel shows West Yellowstone in the lead. The rail visitors accredited to this gateway consist of 2,721 arriving via Union Pacific Railroad, plus 402 temporary employees of the Government park operators; 590 via the Gallatin Gateway from the Chicago, Milwaukee, St. Paul and Pacific Railway; and 33 via the Bozeman terminal of Northern Pacific Railway. There were 3,242 rail visitors who entered the park via the Gardiner Gateway; 1,524 via the Cody or Eastern Gateway; 590 via the southern gateway from Lander, Wyoming, the terminus of the Chicago & Northwestern Railroad, and 33 from Victor, Idaho, on the Union Pacific Railroad.

The automobile travel includes 16,632 visitors traveling in 5,301 cars who entered the park more than once during the season, as compared with 21,043 visitors traveling in 7,141 cars during 1931.

Classification by States

Visitors were registered this year from every state in the Union, Alaska, Philippine Islands, Hawaii, Cuba, Canal Zone, and 25 foreign countries. The classification of rail travel by states ranks:

New York first with 1143 visitors
Illinois second with 628 visitors
Pennsylvania third with 595 visitors
Massachusetts fourth with 497 visitors.

This year New York and Illinois ranked in the same order, Ohio third and Pennsylvania, fourth.

Automobile travel by states shows Montana heading the list with a total of 13,037 visitors traveling in 3741 cars; California second with 882 visitors in 4,221 cars; Utah third with 7,315 visitors in 1,939 cars; and Wyoming fourth with 6,850 visitors and 2,029 cars. Last year California was first, Montana second, Idaho third and Utah fourth.

Seventy-four makes of cars and 4 makes of motorcycles were registered at entrance stations during the season. The Ford leads the list of cars, the Chevrolet is second, the Buick third, and the Dodge is fourth on the list. Of the 8,304 Fords registered, 7,248 were of the Model A, 1000 V-8 Fords, while the remaining 374 were Model T Fords.

The Harley-Davidson leads the list of motorcycles, with the Indian second and Henderson third.

Other Interesting Data

The largest entrance travel on a single day was on July 3 with a total of 4,070 visitors, as compared with 6,266 visitors on July 4, 1931, and 4,758 on July 4, 1930. 1103 motor vehicles entered the park on July 3, as compared with 1670 on July 4, 1931.

There was one day when the travel exceeded 4,000, as compared with May last year. The average daily entrance travel from the official opening date (June 19) to September 15 was 1,447, as against 2,081 last year and 2,261 in 1930. The average daily number of visitors within the park during the period July 16 to August 14 (30 days) was approximately 5,000 as compared with 8,000 last year. Automobile visitors, on an average, stayed in the park for about three days.

Public auto camping facilities at eight developed camp sites were provided by the National Park Service of the Department of the Interior, without charge, in addition to the accommodations provided at the hotels, lodges, and housekeeping cabins.

Private automobile travel to the summit of Mt. Washburn this year consisted of 10,726 visitors traveling in 3,352 cars, as compared with 14,436 visitors in 11,181 cars last year. The daily average this year was 357 visitors traveling in 43 cars; the daily average last year was 437 visitors traveling in 131 cars.

There was a daily average of 2.6 Yellowstone Park Transportation Company buses over the summit of the mountain this year, as compared with a daily average of 2.75 last year; these buses each have a carrying capacity of eleven passengers.

The Buffalo Show Herd attendance totaled 26,977 visitors, as compared with 43,490 visitors last year, and 31,277 in 1930. One thousand and one dogs were admitted into the park as compared with 1,303 for last year.

There was also a total of 9,114 guns sealed and checked at the en-

ce stations as compared with 11,436 during the year 1931.

Services to the Public

General information service was conducted at all park gateways, at ranger stations along the loop road, and at the Information Offices at park headquarters, Old Faithful, Norris and Fishing Bridge. Mammoth Hot Springs received 36,638 visitors, Old Faithful 83,940, Norris 30,994 and Fishing Bridge 32,302.

Free Government publications totaling about 100,000 were distributed.

Ranger Naturalists delivered lectures concerning the history, wild life, and natural features of the park before audiences, totaling approximately 185,256, as compared with 553,663 last year, and 388,595 in 1930. Figures include the ranger lecture at the Old Faithful bear feeding stand and the auto camp at West Thumb. 54,615 visitors availed themselves of the ranger naturalist guide service at Mammoth Hot Springs, Old Faithful, Yellowstone Lake, Canyon, Tower Falls, West Thumb and Fishing Bridge, as compared with 80,318 last year.

Tens of Thousands of Campers

The accommodations provided at the various developed public auto camp grounds consisted of comfort stations, camp tables, fire wood, convenient and sanitary water supply, provision store, cafeterias and lunch counters. Additional facilities consisted of large numbers of housekeeping cabins.

The public auto camp grounds at Fishing Bridge, one of eight developed camp sites in the park, accommodated 25,267 campers, traveling in 96 cars this year, as compared with 52,825 campers traveling in 16,664 cars last year.

Sixty-six thousand three hundred twenty-nine auto visitors camped at various public camping grounds this year, as compared with 135,613 last year.

Auto visitors have reported approximately 81,186 fish taken from lakes and streams of the park this year, as compared with 91,357 last year and 76,692 in 1930. The average catch per fisherman was a little lower than last year.

Big game animals, consisting of antelope, deer, sheep, elk, moose and buffalo, which were to be seen along the road sides in Yellowstone National Park, contributed to the interest and pleasure of many thousands of visitors.

Roger W. Toll
Superintendent

A-mjh

A detailed analysis of the 1932 travel by rail, motor and by entrance and exit gateways has been compiled and will be mailed to interested persons on request.

TOTAL SEASON TRAVEL BY ENTRANCES - 1932, 1931 and 1930

YELLOWSTONE NATIONAL PARK

1932

ENTRANCE	RAIL Visitors	*BY AUTOMOBILE		BY MOTORCYCLE		Walking Horseback etc. Visitors	Pre- Season Visitors	TOTAL VISIT- ORS
		Cars	Visitors	Cars	Visitors			
North	3,242	10,857	24,923	13	19	756	8,583	37,523
East	3,745	15,350	43,881	33	46	314	6,246	54,232
West	1,524	15,322	43,215	54	79	215	4,243	49,276
South	61	5,209	15,966	8	12	20	534	16,593
TOTAL	8,572	46,738	127,985	108	156	1,305	19,606	157,624

1931

ENTRANCE	RAIL Visitors	*BY AUTOMOBILE		BY MOTORCYCLE		Walking Horseback etc. Visitors	Pre- Season Visitors	TOTAL VISIT- ORS
		Cars	Visitors	Cars	Visitors			
North	6,693	13,311	32,474	23	32	217	8,798	48,214
East	8,872	21,407	63,419	56	72	270	6,738	79,371
West	3,203	21,825	63,230	67	100	147	4,638	71,318
South	161	7,093	21,257	13	15	43	869	22,345
TOTAL	18,929	63,636	180,380	159	219	677	21,043	221,248

1930

ENTRANCE	RAIL Visitors	*BY AUTOMOBILE		BY MOTORCYCLE		Walking Horseback etc. Visitors	Pre- Season Visitors	TOTAL VISIT- ORS
		Cars	Visitors	Cars	Visitors			
North	9,209	13,419	36,930	25	36	206	3,618	49,999
East	12,961	22,478	71,565	64	87	341	1,464	86,418
West	4,585	20,746	64,825	70	103	203	-----	69,716
South	90	6,765	21,451	21	29	137	61	21,768
TOTAL	26,845	63,408	194,771	180	255	887	5,143	227,901

* Includes 5301 cars and 16632 visitors who entered the park more than once during the season of 1932; 6,026 cars and 19,359 visitors who entered the park more than once during the season of 1931; and 4,439 cars and 14,116 passengers who entered the park more than once during the season of 1930. Also includes 6616 cars, pre-season unclassified in 1932, 7,141 cars, pre-season unclassified in 1931, and 1,796 cars, pre-season unclassified in 1930; and 265 cars with 796 passengers, 1932, temporary employees of the Government and park operators, and 422 cars with 1,759 passengers, temporary employees.

The rail visitors accredited to the Western Gateway during the season of 1932 consist of 2,721 via the Union Pacific Railway, 590 via the Gallatin Gateway of the Milwaukee terminal, 33 via the Bozeman terminal of the Northern Pacific who also entered the park via the Gallatin route, and temporary employees of the Government and park operators. The visitors accredited to the Western Gateway during the season of 1931 consisted of 2,717 via the Union Pacific Railway; 1,261 via the Gallatin Gateway of the Milwaukee terminal; 331 via the Bozeman terminal of the Northern Pacific who also entered the park via the Gallatin route; and 623 temporary employees of the Government and park operators. The rail visitors accredited to the Western Gateway during the season of 1930 consisted of 10,271 via the Union Pacific Railway; 1,637 via the Gallatin Gateway of the Milwaukee terminal; 383 via the Bozeman terminal of the Northern Pacific; and 670 temporary employees.

Includes 33 rail visitors entering via Victor, Idaho, on the Northern Pacific System, and 27 entering at Lander, Wyoming, on the Chicago & Northwestern Railway during the season of 1932. Also includes 40 rail visitors entering via Victor, Idaho, on the Union Pacific System, 121 entering at Lander, Wyoming, on the Chicago & Northwestern during the season of 1931, with 21 via Victor and 69 via Lander during 1930.

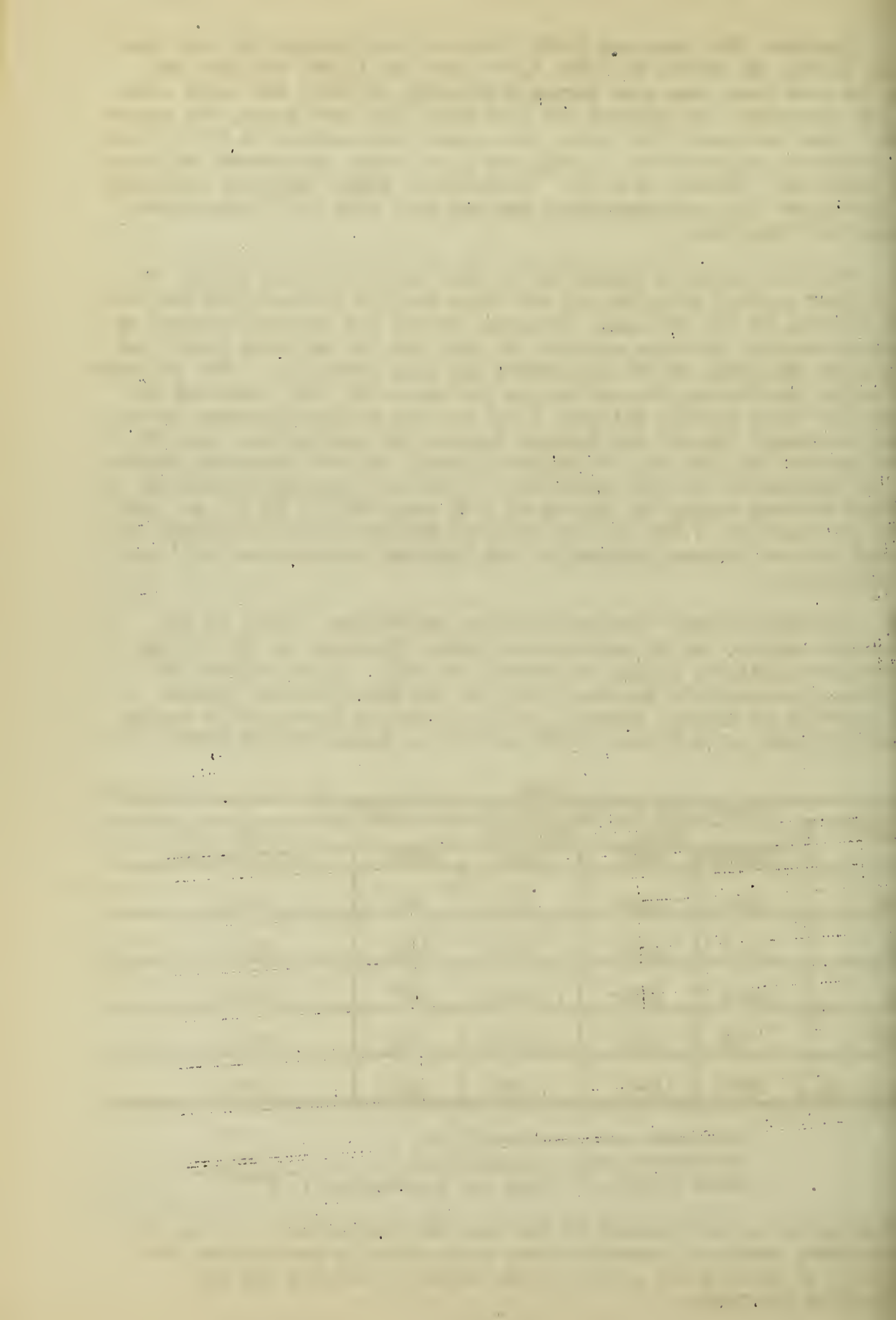
1932					
AUTOMOBILES BY ENTRANCE AND EXIT GATEWAYS					
ENTRANCE	Exit Gateways				Total Cars Entering Park
	NORTH	WEST	EAST	SOUTH	
North	2965	1818	2114	947	7844
West	2749	4166	3889	2440	13244
East	3288	4000	2188	4377	13853
South	793	1787	1794	650	5024
Total Exit Cars	9795	11771	9985	8414	39965

Employees cars, unclassified. 265

Pre-season cars, unclassified 6616

GRAND TOTAL, all cars and motorcycles . 46846

2: Passengers are not counted as the cars are checked out, but the approximate number of passengers may be obtained by multiplying the number of cars by 3.2, the average number of persons per car entering the park.



RAIL TRAVEL BY ENTRANCE AND EXIT GATEWAYS

1932

ENTRANCE	EXIT GATEWAY							Un- classi- fied	Total En- trance
	North	West			East	South	Victor		
		West Yel- lowstone	Gallatin Gateway	Bozeman					
	299	68	2	5	1380	2	0	526	2282
Yellowstone	62	2061	15	0	393	17	17	156	2721
Gallatin way	1	129	393	0	42	2	1	22	590
Bozeman	2	2	0	3	26	0	0	0	33
	774	289	7	20	388	2	3	26	1509
	2	11	0	0	10	1	0	3	27
	0	29	0	0	2	0	0	2	33
Exit Tours	1140	2589	417	28	2241	24	21	735	7195
Temporary Employees									1377

Grand Total..... 8572

Note: The unclassified column shown above is composed of miscellaneous and deadhead travel. The temporary employees of the Government and Park Operators are credited to the following entrances: North 960; West 402; East 15.

THE UNIVERSITY OF CHICAGO

NAME		ADDRESS		CITY		STATE		COUNTRY	
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31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

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THE UNIVERSITY OF CHICAGO
 5408 S. UNIVERSITY AVE.
 CHICAGO, ILL. 60637
 U.S.A.

STATEMENT SHOWING AUTOMOBILE TRAVEL BY STATES

YELLOWSTONE NATIONAL PARK - SEASON OF 1932

STATE	North		West		East		South		Total	
	Cars	Pass.	Cars	Pass.	Cars	Pass.	Cars	Pass.	Cars	Pass.
Ala.	3	11	17	53	20	70	11	40	51	174
Ariz.	20	51	66	197	37	114	32	102	155	464
Cal.	4	13	18	59	22	66	15	37	59	175
Conn.	615	1702	2141	6012	982	2807	483	1361	4221	11882
Del.	151	415	168	522	534	1614	385	1170	1238	3721
Fla.	19	60	57	163	77	234	14	42	167	499
Georgia	2	5	10	21	6	18	6	15	24	59
Idaho	17	45	42	128	73	199	21	52	153	424
Ill.	25	71	55	155	60	179	29	89	169	494
Ind.	7	21	29	104	21	72	18	149	75	346
Iowa	68	193	1375	5341	80	251	238	903	1761	6688
Kan.	267	852	382	1206	1171	3589	251	777	2071	6424
Kent.	81	251	147	447	259	822	110	324	597	1844
La.	108	312	174	596	535	1656	105	321	922	2885
Maine	94	521	159	532	320	1045	171	539	744	2637
Mass.	12	40	55	223	49	161	22	78	138	502
Mich.	6	18	25	79	24	83	11	38	66	218
Minn.	4	10	9	26	16	42	3	10	32	88
Mo.	19	55	60	187	63	190	18	50	160	482
N.H.	58	163	104	281	199	549	38	105	399	1098
N.J.	118	364	192	603	547	1610	74	238	931	2815
N.D.	334	1093	243	782	676	2052	55	179	1308	4106
Ohio	7	27	19	72	10	35	9	32	45	166
Ore.	75	222	176	583	356	1122	206	684	813	2611
Pak.	1738	5929	1325	4733	606	2090	72	285	3741	13037
R.I.	80	243	118	398	492	1598	150	519	840	2758
S.D.	8	22	65	191	11	36	16	49	100	298
Tenn.	2	6	7	21	23	66	5	19	37	112
Tex.	70	203	127	360	269	857	64	188	530	1608
Utah	15	39	27	95	16	43	17	48	75	225
Vt.	144	405	413	1218	807	2260	148	428	1512	4331
W. Va.	10	35	34	174	22	98	8	25	74	332
W.D.	154	506	103	350	175	608	8	25	440	1489
Wis.	99	283	276	844	528	1610	152	451	1055	3188
Wyo.	54	176	93	305	169	605	109	374	425	1460
Pa.	94	271	319	979	103	325	53	159	569	1734
Penn.	103	277	294	915	385	1159	117	332	899	2683
R.I.	5	14	11	32	26	79	5	11	47	136
S.C.	17	51	18	62	8	28	5	16	48	157
S.D.	38	116	56	175	240	744	40	126	374	1161
Mont.	11	38	26	88	36	133	16	47	89	306

STATE	North		West		East		South		Total	
	Cars	Pass.	Cars	Pass.	Cars	Pass.	Cars	Pass.	Cars	Pass.
	76	232	170	554	242	729	146	433	634	1948
	112	368	1453	5630	60	161	314	1156	1939	7315
	2	6	3	15	13	38	5	15	23	74
a	15	51	31	109	46	145	10	30	102	335
ton	429	1234	505	1514	306	988	89	279	1329	4015
rginia	4	16	26	109	28	91	15	42	73	257
in	137	415	138	432	502	1555	66	219	843	2621
	92	267	125	354	1196	4173	616	2056	2029	6850
	6	19	3	6	3	9			12	34
							1	4	1	4
	168	469	77	249	100	331	13	47	358	1096
one	4	14	3	8	9	28			16	50
	2	7			1	2			3	9
			1	3					1	3
					1	5			1	5
			1	2					1	2
	1	5	1	3					2	8
	8	16	11	39	6	21	4	12	29	88
					1	5			1	5
			2	10					2	10
pine Is.			2	10	1	1			3	11
TALS	5812	18248	11587	38359	12568	39220	4589	14730	34556	110557

Cars entering second trip, unclassified by states	5301	16632
Motorcycle, unclassified by states	108	156
Pre-season travel, unclassified by states	6616	19606
Employees entering by automobile, unclassified	265	796

TOTAL ALL CARS AND PASSENGERS, classified and unclassified	46846	147747
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Date		Description		Amount	
1890	Jan 1	Balance		100.00	
	Feb 1	Interest		5.00	
	Mar 1	Interest		5.00	
	Apr 1	Interest		5.00	
	May 1	Interest		5.00	
	Jun 1	Interest		5.00	
	Jul 1	Interest		5.00	
	Aug 1	Interest		5.00	
	Sep 1	Interest		5.00	
	Oct 1	Interest		5.00	
	Nov 1	Interest		5.00	
	Dec 1	Interest		5.00	
1891	Jan 1	Balance		100.00	
	Feb 1	Interest		5.00	
	Mar 1	Interest		5.00	
	Apr 1	Interest		5.00	
	May 1	Interest		5.00	
	Jun 1	Interest		5.00	
	Jul 1	Interest		5.00	
	Aug 1	Interest		5.00	
	Sep 1	Interest		5.00	
	Oct 1	Interest		5.00	
	Nov 1	Interest		5.00	
	Dec 1	Interest		5.00	
1892	Jan 1	Balance		100.00	
	Feb 1	Interest		5.00	
	Mar 1	Interest		5.00	
	Apr 1	Interest		5.00	
	May 1	Interest		5.00	
	Jun 1	Interest		5.00	
	Jul 1	Interest		5.00	
	Aug 1	Interest		5.00	
	Sep 1	Interest		5.00	
	Oct 1	Interest		5.00	
	Nov 1	Interest		5.00	
	Dec 1	Interest		5.00	
1893	Jan 1	Balance		100.00	
	Feb 1	Interest		5.00	
	Mar 1	Interest		5.00	
	Apr 1	Interest		5.00	
	May 1	Interest		5.00	
	Jun 1	Interest		5.00	
	Jul 1	Interest		5.00	
	Aug 1	Interest		5.00	
	Sep 1	Interest		5.00	
	Oct 1	Interest		5.00	
	Nov 1	Interest		5.00	
	Dec 1	Interest		5.00	

Date		Description		Amount	
1894	Jan 1	Balance		100.00	
	Feb 1	Interest		5.00	
	Mar 1	Interest		5.00	
	Apr 1	Interest		5.00	
	May 1	Interest		5.00	
	Jun 1	Interest		5.00	
	Jul 1	Interest		5.00	
	Aug 1	Interest		5.00	
	Sep 1	Interest		5.00	
	Oct 1	Interest		5.00	
	Nov 1	Interest		5.00	
	Dec 1	Interest		5.00	
1895	Jan 1	Balance		100.00	
	Feb 1	Interest		5.00	
	Mar 1	Interest		5.00	
	Apr 1	Interest		5.00	
	May 1	Interest		5.00	
	Jun 1	Interest		5.00	
	Jul 1	Interest		5.00	
	Aug 1	Interest		5.00	
	Sep 1	Interest		5.00	
	Oct 1	Interest		5.00	
	Nov 1	Interest		5.00	
	Dec 1	Interest		5.00	

1932

LISTS REACHING PARK GATEWAYS BY RAIL AND ACCOMMODATED AT HOTELS AND LODGES

Classified by States

STATE	North		West		East		South		Gallatin- Bozeman		.TOTAL		GRAND TOTAL
	Entrance		Entrance		Entrance		Entrance		Entrance				
	Htls.	Ldgs.	Htls.	Ldgs.	Htls.	Ldgs.	Htls.	Ldgs.	Htls.	Ldgs.	Htls.	Ldgs.	
ama	0	2	8	9	5	2			2		15	13	28
ona	1	2	0	2	2	1					3	5	8
nsas	1	1	1	0	1	0				1	3	2	5
ornia	16	21	136	92	9	12	5	8	1	10	167	143	310
rado	1	1	9	6	1	9		1			11	17	28
ecticut	13	13	31	18	12	19			1	2	57	52	109
ware	2	4	7	0	2	1					11	5	16
.	8	18	58	30	7	13	3				76	61	137
ida	2	14	14	12	3	0					19	26	45
gia	1	15	8	15	3	4					12	34	46
o	1	0	8	5	0	0	1	1			10	6	16
nois	93	157	84	85	37	80	7	6	20	59	241	387	628
ana	15	68	17	42	11	13		3	6	9	49	135	184
	5	14	15	23	5	8	1		4	18	30	63	93
as	2	3	2	13	7	12				24	11	52	63
ucky	8	8	7	15	5	1			1	1	21	25	46
siana	5	3	3	16	1	3			5		14	22	36
e	0	5	0	6	6	0				1	6	12	18
land	8	8	56	41	9	16			4		77	65	142
achusetts	54	37	35	48	32	281	2	1	4	3	127	370	497
igan	21	31	14	29	15	15		1		4	50	80	130
esota	38	91	5	4	36	13	3		6	51	88	159	247
issippi	2	0	12	5	0	0					14	5	19
ouri	22	32	25	42	18	36		3	1	4	66	117	183
ana	2	9	0	0	0	3		1		1	3	13	16
aska	1	3	9	18	6	10		2			16	33	49
eda	0	0	1	0	0	0					1	0	1
Hampshire	2	0	2	2	5	6					9	8	17
Jersey	31	47	136	81	31	24	1		5	16	204	168	372
Mexico	0	0	1	2	2	0					3	2	5
York	186	162	273	168	162	124		6	20	42	641	502	1143
h Carolina	3	2	0	14	0	0					3	16	19
h Dakota	1	9	0	0	0	2					1	11	12
	28	85	61	71	24	43	2		5	25	120	224	344
homa	1	2	5	2	4	3				1	10	8	18
on	5	3	9	1	3	2		2	1		18	8	26
sylvania	63	145	120	95	94	55	9	3		11	286	309	595
e Island	8	1	7	7	2	3			9		26	11	37
h Carolina	0	0	22	8	1	0				2	23	10	33
essee	8	5	12	12	5	2			3	2	28	21	49
s	4	6	4	16	0	13				1	8	36	44
	0	0	13	13	0	0				1	13	14	27
inia	6	13	17	26	5	7		1			28	47	75
ont	2	0	3	4	3	9					8	13	21

STATE	North		West		East		South		Gallatin-Bozeman				GRAND
	Entrance		Entrance		Entrance		Entrance		Entrance		Total		
	Htls	Ldgs	Htls	Ldgs	Htls	Ldgs	Htls	Ldgs	Htls	Ldgs	Htls	Ldgs	
ington	15	21	2	9	7	4		1	7	11	31	46	77
nsin	22	71	34	30	6	2		2	6	71	68	176	244
Virginia	0	0	10	9	2	2			3	18	15	29	44
ng	0	1	1	1	1	2		2			4	4	8
Dakota	0	0	0	0	0	0			3	2	3	2	5
TOTAL	707	1133	1297	1147	590	855	34	44	117	391	2748	3567	6315

BY FOREIGN COUNTRIES

a	0	0	2								2	0	2
ia		1										1	1
um				1								1	1
oslovakia				1								1	1
a	6	3	4	6	1	3				2	11	14	25
		3		3								6	6
			1		1						2		2
rk			2								2		2
nd	1	1	2	3	0	0	3	2			6	5	11
e	0	1	5		2						7	1	8
ny	2		4	5	1	1					7	6	13
lian Islands	4	1	2	2							6	3	9
nd	4		7	1							11	1	12
ry			1		1						2		2
				1							1		1
			2								2		2
	2	2		1					1		3	3	6
			2								2		2
	4		1								5		5
eland	1		2								3		3
a, Canal Zone						1						1	1
ppines		1			1						1	1	2
Rico													
ia				3								3	3
and						1						1	1
						1						1	1
						1						1	1
merica			1								1		1
TOTAL	24	13	38	26	8	8	3	2	1	2	74	51	125

classified													
Travel	731	1146	1335	1173	598	863	37	46	118	393	2822	3618	6440

unclassified													
Rail Travel													*2132

GRAND TOTAL..... 8572

Note: The unclassified rail travel shown below includes 1377 temporary employees of the Government and Park Operators, credited to the following entrances: North 960; West 402; East 15.

STANDARD MAKE AUTOMOBILES DRIVEN THROUGH
YELLOWSTONE NATIONAL PARK

MAKE	1930	1931	1932	MAKE	1930	1931	1932
W Head	0	1	0	Lexington	6	1	1
erson	1	2	0	Lincoln	261	213	165
erson	2	0	0	Locomobile	12	12	4
	3	2	1	LaSalle	323	274	194
rn	207	323	255	Marquette	140	120	61
in	0	8	13	Marmon	223	173	114
k	5631	4843	3254	Maxwell	60	30	12
chi (Italian)	0	0	1	McLaughlin	0	1	0
llac	544	503	316	Mercer	6	1	0
	4	1	2	Mitchell	1	0	0
mers	2	5	0	Moon	34	24	5
dlr	218	119	56	Meteor	1	0	0
rolet	9154	9690	7217	Nash	1928	1612	1015
slr	2319	2006	1260	Oakland	664	546	303
eland	26	13	7	Oldsmobile	1490	1326	966
	1	0	0	Overland	184	91	38
mbia	1	0	0	Packard	1061	912	620
	26	30	24	Paige	220	92	57
ingham	1	0	0	Peerless	108	84	53
to	511	560	459	Pierce Arrow	150	172	104
ux	0	26	22	Pontiac	1668	1552	1129
e	3203	2483	1537	Plymouth	558	642	1009
	2	0	0	Premier	2	1	0
nt	2	1	0	Reo	428	427	249
nt	585	420	217	Rickenbacher	37	24	8
nberg	0	6	0	Rockne	0	0	63
a	10	10	4	Rock Falls	0	0	1
r	6	6	5	Rolls Royce	2	5	3
ine	143	79	52	Rollin	1	1	0
x	1661	1310	769	Roosevelt	86	55	27
on Knight	42	37	14	Star	278	130	56
t	38	15	15	Stanley Steamer	1	0	0
o T	1467	518	374	Stearns Knight	18	5	3
o A	12269	11682	7248	Stevens	5	1	0
o V-8	0	0	682	Studebaker	2299	1963	1341
oklin	382	287	208	Stutz	73	58	28
ram	0	0	303	Velie	47	33	15
ram Paige	685	733	138	Viking	61	59	39
aner	44	46	20	Whippet	1015	598	288
r	2	0	0	White	4	2	1
es	3	0	1	Willys Knight	1034	738	352
ey	0	0	2	Willys Six	83	233	223
on	1408	990	642	Willys St.Claire	11	5	8
obile	956	781	543	Windsor	2	6	3
ett	119	55	43	Winton	4	0	0
an	49	39	14	Wolverine	9	10	4
el Kar	17	14	6	TOTAL CARS	56560	49877	34287
ayette	2	1	1				

YELLOWSTONE NATIONAL PARK

YELLOWSTONE
NATIONAL PARK
LIBRARY



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